

- F1
codt.
- (a) a first region containing the 5' end of the primer and an immobilization attachment site; and
 - (b) a second region containing the 3' end of the primer and a selectively chemically cleavable site, wherein the 3' end is capable of being extended by an enzyme to generate an extension segment,

whereby, when the primer is immobilized via the immobilization attachment site, and the selectively chemically cleavable site is cleaved, the remainder of the primer remains immobilized.

2. (Amended) The primer of claim 1, wherein the selectively chemically cleavable site is located at or within about five nucleotides from the 3' end of the primer.

5. (Amended) The primer of claim 1, wherein the selectively chemically cleavable site comprises a modified base, a modified sugar, or a chemically cleavable group incorporated into the phosphate backbone.

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6. (Amended) The primer of claim 5, wherein the selectively chemically cleavable site comprises a modified sugar.

7. (Amended) The primer of claim 1, where the selectively chemically cleavable site is selected from the group consisting of dialkoxysilane, 3'-(S)-phosphorothioate, 5'-(S)-phosphorothioate, 3'-(N)-phosphoramidate, 5'-(N)-phosphoramidate, uracil, and ribose.

8. (Amended) The primer of claim 7, wherein the selectively chemically cleavable site is 3'-(S)-phosphorothioate or 5'-(S)-phosphorothioate.

REMARKS

A check covering the fees for filing the Notice of Appeal and a two (2) month extension of time accompanies this response. Any fees that are due with this paper or application can be charged to Deposit Account No. 50-1213. If a